

EXHIBIT 1

PUBLIC VERSION

UNITED STATES INTERNATIONAL TRADE COMMISSION

Washington, D.C.

In the Matter of

**CERTAIN MICROFLUIDIC SYSTEMS
AND COMPONENTS THEREOF AND
PRODUCTS CONTAINING SAME**

Inv. No. 337-TA-1100

INITIAL DETERMINATION ON VIOLATION OF SECTION 337

Administrative Law Judge Dee Lord

(July 12, 2019)

Appearances:

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For the Commission Investigative Staff:

Monica Bhattacharyya, Esq. and Anne Goalwin, Esq. of the Office of Unfair Import Investigations.

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Pursuant to the Notice of Investigation (Dec. 13, 2017) and Commission Rule 210.42, this is the administrative law judge's final initial determination in the matter of *Certain Microfluidic Systems and Components Thereof and Products Containing Same*, Commission Investigation No. 337-TA-1100. 19 C.F.R. § 210.42(a)(1)(i).¹

For the reasons discussed herein, it is my final initial determination that there is a violation of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, in the importation into the United States, the sale for importation, and/or the sale within the United States after importation of certain microfluidic systems and components thereof and products containing same by reason of infringement of certain claims of U.S. Patent No. 9,689,024 ("the '024 Patent"), U.S. Patent No. 9,695,468 ("the '468 Patent"), and U.S. Patent No. 9,856,530 ("the '530 Patent"). There is no violation with respect to U.S. Patent No. 9,644,204 ("the '204 Patent").

¹ Pursuant to Commission Rule 210.42(a)(1)(ii), a recommended determination on remedy and bonding shall issue within 14 days of this initial determination. 19 C.F.R. § 210.42(a)(1)(ii).

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of words, like barcodes, gel beads. It's actually how they're all put together, which is really important for driving the performance of the system.”). Because there is no evidence that Dr. Heredia had an idea of how the elements that he allegedly conceived of would be put together to achieve the desired result, he made no significant contribution.

Absent evidence that Dr. Heredia’s liquid bead contributed anything of significance to the patented technology (or any technology), Bio-Rad cannot demonstrate clearly and convincingly that Dr. Heredia is a joint inventor.

B. Ownership

As an affirmative defense to 10X’s allegations of infringement, Bio-Rad claims ownership of each of the asserted patents in this investigation. 10X disputes Bio-Rad’s claims of ownership, and Staff agrees with 10X. Although, in briefing the matter, the parties have lost their way in arguments concerning the law of inventorship, this is a contract dispute that boils down to a simple question: is there evidence that the idea embodied in the asserted patents was conceived by Drs. Hindson and Saxonov during the period in which they were employed by Quanta/Life and Bio-Rad? If the answer is yes, then as a matter of contract law, the asserted patents belong to Bio-Rad. If the answer is no, the asserted patents belong to 10X.

1. Legal Standards

“It is elementary that inventorship and ownership are separate issues.” *Beech Aircraft Corp. v. EDO Corp.*, 990 F.3d 1237, 1248 (Fed. Cir. 1993). *Accord, Israel Bio-Eng’g Project v. Amgen, Inc.*, 475 F.3d 1256, 1263 (Fed. Cir. 2007) (“[I]ssues of patent ownership are distinct from questions of inventorship.”). Ownership “is a question of who owns legal title to the subject matter in a patent,” while “inventorship is a question of who actually invented the subject matter claimed in a patent.” *Beech*, 990 F.2d at 1248. Bio-Rad confuses the issue by attempting

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to use the legal analysis that applies to joint inventorship to resolve its ownership dispute with 10X. The distinction is illustrated in this case: the question whether Dr. Heredia should be treated as a co-inventor is one of inventorship; but there is no question that Drs. Hindson and Saxonov are inventors on the asserted patents. The question with respect to them is one of ownership, *i.e.*, do their contractual agreements with Bio-Rad and QuantaLife require that the asserted patents be assigned to Bio-Rad? *See FilmTec Corp. v. Hydranautics*, 982 F.2d 1546, 1550 (Fed. Cir. 1992) (stating that in a case that “turns on” “ownership”, the court only needs “to decide whether the invention . . . was made or conceived” during the period of employment).²²

Bio-Rad’s ownership claims arise solely as the result of the contract terms governing the employment of Drs. Hindson and Saxonov, who are among the named inventors of the asserted patents. In general, contract terms must be construed under state law. *Board of Trustees of Leland Stanford Junior Univ. v. Roche Molecular Sys., Inc.*, 583 F.3d 832, 841 (citing *Jim Arnold Corp. v. Hydrotech Sys.*, 109 F.3d 1567, 1572 (Fed. Cir. 1997)). The exception to this

²² Bio-Rad asserts that I adopted joint inventorship as a “guide” to ownership. RIB at 20 (citing Order No. 34). To the contrary, on reconsideration, Order. No. 41 clarified that “Order No. 34 did not conclusively establish the legal framework for deciding Bio-Rad’s ownership claim.” Order No. 41 at 2. In affirming denial of 10X’s motion for summary determination on the ownership issue, Order No. 41 recognized that the “legal standard for addressing the ownership issue” continued to be disputed, and that “the parties’ dispute would be better resolved after the conclusion of the evidentiary hearing, with the benefit of a complete evidentiary record regarding the contractual relationships between the parties and the contributions of the inventors.” *Id.* As stated in Order No. 41, doubt concerning the facts and the law precluded a ruling on summary determination, including on the applicable legal standards. *See also Gen'l Elec. Co. v. Wilkins*, No. CV F 10-0674 LJO JLT, 2012 WL 3778865(E.D. Cal. 2012) at *19 note 3 (“[T]his Court is not bound by its interlocutory orders, which are not final, and may reconsider or modify them at any time.”) (quoting *Marconi Wireless Telegraph Co. v. United States*, 320 U.S. 1, 63 (1943); *City of Los Angeles, Harbor Div. v. Santa Monica Baykeeper*, 254 F.3d 882(9th Cir. 2001)).

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rule covers matters that are “intimately bound up with the question of standing in patent cases,” such as “whether contractual language effects a present assignment of patent rights, or an agreement to assign rights in the future.” *Id.* No such question is presented here.²³ This is important because the standard for determining joint ownership is a matter of patent law determined by federal courts, while the federal courts defer to state law on questions of contract. “[Q]uestions of contract law are matters of state law, questions related to patent law are interpreted according to federal law.” *General Elec. Co. v. Wilkins*, No. CV F 10-0674 LJO JLT, 2012 WL 3778865 (E.D.Cal. 2012).

Confusing the two issues leads to error, as described by the federal court in *STMicroelectronics, Inc. v. Harari*, Case No. C 05-4691 JF, 2006 WL 2032580 (N.D. Cal. 2006).²⁴ In that case, the court addressed a dispute similar to the facts here: a company sued its former employee alleging that certain inventions were subject to a contract in which the employee agreed to assign inventions made during the term of his employment. *Id.* at *1-2. The district court initially found federal jurisdiction based on a substantial question of federal patent law. *Id.* at *2. The court reversed its decision on reconsideration, holding that “[o]wnership and inventorship issues are completely separate issues,” and that the resolution of the ownership dispute depended entirely on the terms of the employment contract and the question of when “the

²³ Obviously, if Bio-Rad owns the patents, 10X lacks standing to assert them. But this is not a case in which there is a dispute concerning a present vs. a future assignment of rights, or how the actual assignment of patent rights among multiple parties affects standing. Interpretation of the contractual provisions, not application of the law of standing, determines the outcome in this instance.

²⁴ *Harari* is an unpublished decision. It is cited here not as precedent but as an instance in which a court mistakenly applied patent law inventorship principles to the issue of ownership, and thereafter recognized and corrected its mistake.

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inventions described in the subject patents were ‘made or conceived.’” *Id.* at *10-11. This “presen[ted] a factual question that does not implicate a substantial question of patent law,” the court ruled, sending the case back to state court. *Id.* at *12-14.

The *Harari* court explicitly rejected the idea that determining the “inventive contribution” made by the employee mattered at all in deciding whether the company owned the inventions made by him. “It is unclear,” the court lamented, “how Defendants, and subsequently the Court, came to inject the phrase ‘inventive contribution’ into the discussion of Harari’s contractual disclosure and assignment obligations. The phrase does not appear in the Inventions Agreement” *Id.* at *8. Because the employment agreements required disclosure and assignment of all inventions and rights to inventions made during the term of employment, “there was no need to inquire into Harari’s precise inventive contribution.” *Id.* at *11.

Harari relies on *AT&T v. Integrated Network Corp.*, 972 F.2d 1321 (Fed. Cir. 1992), a precedential Federal Circuit decision involving similar facts, in which the Federal Circuit reversed a district court decision asserting jurisdiction and remanded with instructions to send the case to a state court. *Id.* at 1325. In *AT&T*, four employees left AT&T to join another firm, INC, “as a team.” *Id.* at 1323. The employees were subject to agreements giving AT&T assignment rights in inventions made or conceived, either solely or jointly with others, during the course of their employment. *Id.*

The patent in question was filed about a year and a half later, naming the four former AT&T employees as inventors, and disclosing that the application for the patent was assigned to INC. *Id.* AT&T sued alleging that the invention in question had been disclosed in a proprietary [AT&T] memorandum prepared by one of the four employees during the period of employment. *Id.* AT&T alleged contract and tort claims. INC removed the case to federal district court, but

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AT&T moved the district court to remand the case back to state court, arguing that it would seek to prove that the invention was conceived during the period of employment by AT&T, and that this did not present “a substantial question of federal patent law.” *Id. Accord, e.g., ReCor Med. Inc. v. Warnking*, C.A. No. 7387-VCN, 2013 Del. Ch. LEXIS 142 at *34 (Del. Ch. Ct. May 31, 2013) (“[T]he Court can see no reason why patent law should displace contract law here.” (citing *AT&T*.)

The district court kept the case but on appeal, the Federal Circuit held that it should be remanded to the state court for decision. *Id.* at 1324. The Circuit explained that “conception of inventions, as used in the employment agreement, is [not] solely a technical question of patent law.” *Id.* Specifically, the Circuit opined that the moment “when an invention was conceived may be more a question of common sense than of patent law.” *Id.* The Circuit said the state court was “free to look for guidance to the law on the conception of inventions as we may have explained it, but in light of the different facets of the word conceive, indeed of inventions, this may well not be determinative of the outcome . . .” *Id.* at 1325 (quoting *Ingersoll-Rand Co. v. Ciavatta*, 542 A.2d 879 (1988). *Accord, e.g., Motorola, Inc. v. Lemko Corp.*, No. 08 C 5427, 2012 WL 74319, at *4-5 (N.D. Ill. Jan. 10, 2012) (“the parties did not necessarily use terms in their agreements in the same way in which they are defined in patent law”).

While the jurisdictional question addressed in *AT&T* does not arise in a case brought pursuant to section 337, the principle is the same: where an action sounding in contract is brought, the resolution of the contract dispute should be decided based on state law, even in a patent case.²⁵ A state court may look to federal law for “guidance” on questions of inventorship

²⁵ *Ingersoll-Rand* states that it is the employer’s burden to establish that conception occurred during the period of the employment contract. 542 A.2d at 894. *Accord, e.g., ReCor*, 2013 Del.

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where that is appropriate, but an action for breach of contract remains a question of state law and does not arise under federal patent law. *AT&T, supra*. In the case before me, as in *AT&T*, the contract requires determination of when the idea that gave rise to the patents-in-issue was conceived. The time of conception, as the Circuit noted in *AT&T*, is not a patent law issue.

The parties in this case fall into the same trap bemoaned by the court in *Harari* to the extent that they argue about whether the concept of “complete inventorship” applies to Drs. Hindson and Saxonov. The notion of “complete inventorship” has no application with respect to ownership under the pertinent contracts. These contracts, like the contracts in *Harari*, are silent as to any inventive contribution, complete or incomplete, made by an employee. Under the unambiguous contract provisions, *see infra*, the only fact that matters is the actual time when the inventors conceived of the inventive idea embodied in the asserted patents. *See also Motorola*, 2012 WL 74319 at *5 (“[T]he terms ‘developed or conceived . . . during the term of my employment’ are not ambiguous. Their meaning is sufficiently clear that a jury could simply examine evidence of when the inventions or ideas embodied in the Lemko patents first came into existence in order to determine whether Pan and Labun’s actions were within the scope of the contractual term.”).

2. Discussion

The real dispute involves defining the inventive concept in the asserted patents. Bio-Rad has the burden to identify the idea of which it claims ownership. It has not done so. Instead, it has briefed the matter as if it owned a share of the patents because it could trace some elements of the asserted patents to work done at Quanta/Life and Bio-Rad. This is inconsistent with the

Ch. LEXIS 142 at *32 (employer “must show by a preponderance of the evidence that it is entitled to the relief it requested”).

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contracts: [REDACTED]

[REDACTED] Bio-Rad, as 10X freely concedes, owns many ideas conceived by Drs. Hindson and Saxonov, but it does not own the idea for the specific arrangement of elements claimed in the asserted patents, as discussed herein, because there is insufficient evidence that that idea was conceived during the period of employment.

As described by Dr. Hindson, the invention claimed in the asserted patents is complex and consists of many elements. CX-0001C (Hindson WS) at Q/A 88. The inventive idea, which emerged from many other ideas (some of which clearly were in the prior art), is to combine these elements in a process resulting in what 10X calls the GEM (“gel bead in emulsion”) architecture. As confirmed by both parties, the inventive idea is a specific arrangement of elements which, when combined, works to achieve a desired goal. *See* Tr. (Metzker) at 728:14-22 (“[I]t has to work within the architecture of a droplet, so partitioning the analyte from other analytes, having a reagent delivery system that adds the reagents that we can then combine, barcode, analyze and then track back to the different droplets, to what is the makeup of that analyte. All of that, all of that together is important.”). *See also* Tr. (Schnall-Levin) at 230:15-24 (“[T]his invention is not like a bag of words, like barcodes, gel beads. It’s actually how they’re all put together, which is really important for driving the performance of the system.”). The asserted patents each claim particular steps in the GEM architecture, and for purposes of ownership, the employment contracts at issue require determination of who conceived of this architecture and when. *See ReCor*, 2013 Del. Ch. Ct. LEXIS at *29, 42 (examining the record to determine when the “aha” or “eureka” moment occurred). Bio-Rad does not address squarely the critical contractual question of when the inventive concept in the asserted patents was conceived. Instead, Bio-Rad clouds the real issue with misplaced arguments about inventive contributions.

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Consistent with the Federal Circuit's holding in *AT&T*, California law governs the pertinent employment agreements between Bio-Rad and Drs. Hindson and Saxonov. RX-0624C at ¶ 11; RX-0623C at ¶ 11; RX-0619C at ¶ 11; RX-0620C at ¶ 11. "Under California law, the interpretation of a written contract is a matter of law for the court even though questions of fact are involved." *Southland Corp. v. Emerald Oil Co.*, 789 F.2d 1441, 1443 (9th Cir.1986).

Contract language that is plain and unambiguous requires no construction. "'In interpreting an unambiguous contractual provision we are bound to give effect to the plain and ordinary meaning of the language used by the parties.'" *Lockyer v. R.J. Reynolds Tobacco Co.*, 107 Cal. App. 4th 516, 517 (2003) (quoting *Coast Plaza Doctors Hospital v. Blue Cross of California*, 83 Cal. App. 4th 677, 684 (2000)). Where "'contract language is clear and explicit and does not lead to absurd results, we ascertain intent from the written terms and go no further.'" *Shaw v. Regents of Univ. of California*, 58 Cal. App. 4th 44, 53, 67 (1997). See Cal. Civ. Code § 1639 ("When a contract is reduced to writing, the intention of the parties is to be ascertained from the writing alone, if possible.").

The contracts in this case state, in pertinent part, with respect to QuantaLife:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

And with respect to Bio-Rad:

[REDACTED]

[REDACTED]

[REDACTED]

RX-0619C at ¶¶ 3, 6; RX-0620C at ¶¶ 3, 6.

As set forth above, the QuantaLife contracts [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] RX-0623C at ¶2(a). The Bio-Rad contracts [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] RX-0619C at ¶¶3, 6. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] *Id.* at ¶3.

[REDACTED]

[REDACTED]

No provision of any of the applicable contracts governs future inventions that are based on or developed from work done during employment. To the contrary, the plain, unambiguous contract language pertains only to ideas actually conceived during the employment period. Bio-

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Rad's arguments improperly read out the plain meaning of the durational limitation in the pertinent contracts, and in its place suggest an interpretation of the contracts in which inventions developed by the employee after his employment belong to the company if they are related to ideas conceived during employment. “When a dispute arises over the meaning of contract language, the first question to be decided is whether the language is ‘reasonably susceptible’ to the interpretation urged by the party. If it is not, the case is over.” *Lockyer*, 107 Cal. App. 4th at 524. Bio-Rad's (implicit) construction is not reasonable.²⁶

Bio-Rad's contention that “[b]ecause Hindson and Saxonov made contributions to the inventions that are now claimed in the Asserted Patents [REDACTED]

[REDACTED] . . . Bio-Rad has a pro rata undivided co-ownership interest in the Asserted Patents based on those contributions,” RRB at 40, therefore is unavailing. Bio-Rad owns no interest in any of the patents unless it can demonstrate, in conformity with the contractual requirements, that Drs. Hindson and Saxonov actually conceived the inventive idea embodied in the asserted patents during the employment period. Bio-Rad does not cite to any provision of the employment contracts to support its contentions that an idea that is related to the invention embodied in the asserted patents, but is not the actual inventive idea in the asserted patents, confers ownership on Bio-Rad.

On review of this record, Bio-Rad has failed to present any direct evidence that the actual inventive idea embodied in the asserted patents was first conceived at Quanta/Life or Bio-Rad, as required by the contracts. Since it has presented no direct evidence of conception, Bio-Rad necessarily falls back on circumstantial evidence, asking me to infer that conception likely

²⁶ Bio-Rad has not actually offered any alternative construction of the contract terms.

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occurred during the period of employment. Bio-Rad's argument is grounded mainly on the temporal proximity of Drs. Hindson and Saxonov's departure from Bio-Rad and the inventions developed thereafter by 10X.

These facts are basically undisputed: In October 2011, Bio-Rad acquired QuantaLife [REDACTED]

[REDACTED] RIB at 44 (citing RX-0502C (Tumolo DWS) at Q/A 32). Drs. Hindson and Saxonov worked at Bio-Rad for six months thereafter, leaving in what was a "coordinated event" in April 2012. *Id.* at 44-45 (citing Tr. (Hindson) at 162:3-9, 163:6-14; Tr. (Saxonov) at 797:4-21, 798:3-9). After taking off several months, Drs. Hindson and Saxonov formed 10X. Tr. (Hindson) at 163:3-164:3; CX-0001C (Hindson WS) at Q/A 38-40. Within four months of leaving Bio-Rad and less than a month after founding 10X, they filed their first provisional patent application at 10X on August 14, 2012, Provisional App. No. 61/683,192 (the "192 application"). RX-0299.

This chronology alone does not establish circumstantially that the inventions at issue were conceived during Drs. Hindson and Saxonov's employment with QuantaLife and Bio-Rad. The circumstances of their departure make it likely that Drs. Hindson and Saxonov left Bio-Rad with the intention of pursuing opportunities to invent and market new technologies—they were free to do so. But these circumstances in themselves do not support a finding that Drs. Hindson and Saxonov conceived of the idea embodied in the asserted patents before they left Bio-Rad's employ.²⁷

²⁷ The record indicates that Drs. Hindson and Saxonov left Bio-Rad because [REDACTED]

[REDACTED] Tr. (Saxonov) at 798:14-24. [REDACTED]
[REDACTED] *Id.* at 797:15-21.

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Bio-Rad challenges Dr. Hindson's credibility, asking me to infer that he is lying about the time frame in which the inventive idea in the asserted patents was conceived. Bio-Rad maintains that the '192 provisional application, submitted in August 2012, refers to gel beads, and that that disclosure is inconsistent with Dr. Hindson's testimony that conception of the claimed porous gel beads did not occur until the [REDACTED]. *Id.* at 45 (citing CX-0001C (Hindson WS) at Q/A 85). In context, however, Dr. Hindson's testimony that [REDACTED]

[REDACTED] is not inconsistent with the '192 provisional. Dr. Hindson recalls [REDACTED]

[REDACTED] CX-0001C (Hindson WS) at Q/A 86. "Around that time or shortly thereafter, [REDACTED]

[REDACTED] *Id.* Bio-Rad has not pointed to any portion of the '192 provisional patent application showing that the idea to use porous gel beads to deliver barcodes was conceived [REDACTED] before the events described in detail by Dr. Hindson.²⁸

Bio-Rad also points to a paper published in 2009 by inventors at Harvard, referred to as the "Beating Poisson" article. RIB at 47. The significance of the "Beating Poisson" article is that it discusses using microfluidics to deliver deformable gel beads to droplets that can be

²⁸ The '192 application states in pertinent part: "The microcapsules may also comprise a polymer within the interior of the capsule. In some instances this polymer may be a porous polymer bead that may entrap reagents or combinations of reagents. In other instances, this polymer may be a bead that has been previously swollen to create a gel." RX-0299 at ¶0050. This provision refers to a porous polymer bead that may entrap reagents but not to such a bead with barcodes or other reagents releasably attached, as in the asserted patents. As Staff notes, Bio-Rad's expert, Dr. Metzker, does not opine that the asserted claims were conceived in August 2012. SRB at 28 (citing Tr. (Metzker) at 705:2-22.)

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functionalized with DNA. *Id.* See RX-0102. Dr. Hindson testifies in his direct witness statement he came across the “Beating Poisson” paper only in late 2012, while at 10X. CX-0001C (Hindson WS) at Q/A 132. On cross-examination, he concedes that he had encountered the paper in April 2011, while still at QuantaLife, but he claims not to have read it at that time. Tr. at 169:5-22, 172:8-18.

Bio-Rad maintains that Dr. Hindson’s denial is implausible given the importance of the “Beating Poisson” article, pointing in particular to [REDACTED]

[REDACTED]
[REDACTED]

RIB at 48; Tr. (Hindson) at 169:18-171:23). Bio-Rad maintains that Dr. Hindson’s recollection also is undermined by [REDACTED]

[REDACTED] *Id.* (citing JX-0145C; Tr. (Saxonov) at 793:8-794:5.

I am not persuaded that this evidence undermines Dr. Hindson’s credibility. I find it at least plausible that Dr. Hindson did not remember seeing the “Beating Poisson” article or [REDACTED]. The record does not indicate that Dr. Hindson attached particular significance to the article at that time, or that [REDACTED] indicated the conception of the idea for the inventions claimed in the asserted patents.²⁹ If Dr. Hindson did

²⁹ [REDACTED]

[REDACTED] JX-0145C. [REDACTED] does not indicate that Drs. Hindson and Saxonov at that time conceived the idea asserted in the patents. On the contrary, it indicates that they had not conceived the idea embodied in the patents at that time, because there is no mention of using porous gel beads or releasably attached oligonucleotides. The record shows that Drs. Hindson and Saxonov [REDACTED]

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not realize in 2011 the significance of porous gel beads in the eventual development of the GEM architecture at 10X, it would be easy to forget [REDACTED]

[REDACTED] I conclude that Dr. Hindson's alleged lack of credibility is a slim reed for Bio-Rad to stand on.³⁰

In addition to challenging Dr. Hindson's credibility, Bio-Rad points to evidence that certain concepts disclosed in Drs. Hindson and Saxonov's earlier work prefigured the patented invention. Presumably, Bio-Rad would contend (if Bio-Rad were attempting to establish conception under the correct legal theory) that because certain discoveries made by Drs. Hindson and Saxonov during the period of their employment included elements that also are found in the asserted patents, the particular arrangement of those elements, set forth in the asserted patents, must have occurred to them. For example, Bio-Rad discusses the concepts [REDACTED]
[REDACTED]
[REDACTED]

[REDACTED] RIB at 40-44. Dr. Saxonov testifies, however, that [REDACTED]

[REDACTED] CX-1829C

[REDACTED]. If that in itself were sufficient to trigger ownership of inventions patented after they left Bio-Rad, the contracts' [REDACTED] would be nullities.

³⁰ I agree with Bio-Rad that Dr. Hindson on several occasions was not forthcoming in his representations to Bio-Rad's representative about the work that was being conducted at 10X, but Dr. Hindson testifies credibly that he felt threatened by Bio-Rad; people are known to react defensively when they perceive they are under attack, even when they have done nothing wrong. See CX-1828C (Hindson RWS) at Q/A 55 ("It was very clear to me based on our conversations what she was asking me was 'are you using Quantalife droplets,' essentially fishing for whether we were competing with our old Quantalife products, and the answer to that was clearly 'no,' because we were using GEMs.")

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(Saxonov RWS) at Q/A 22 (“We had not thought through these issues or come up with solutions that would have made it work.”).

Bio-Rad also points out that certain number ranges of “cells, droplets, beads, and barcodes” were disclosed in the ’059 patent, JX-0031, and that the numbers discussed in the claims of the asserted patents, as Dr. Saxonov concedes, could be derived easily based on those ranges. RRB at 55 (quoting RX-0412C (Saxonov Dep. Tr.) at 148:15-149:12). These facts do not demonstrate, even circumstantially, that the idea for the inventions claimed in the asserted patents had already been conceived at the time the ’059 application was filed.³¹

Bio-Rad also contends that the entries in notebooks offered into evidence by 10X to support conception by the 10X inventors is “much more consistent with the theory that Dr. Hindson and others founded 10X to commercialize the ideas they had at QuantaLife and Bio-Rad.” RRB at 57. Bio-Rad cites testimony from Dr. Schnall-Levin and Dr. Dear that allegedly corroborates Bio-Rad’s argument that 10X’s lab notebooks do not evidence the conception of the inventions claimed in the asserted patents. RIB at 130-131. Even assuming Bio-Rad’s argument about the nature of 10X’s notebooks is correct (and this is disputed), it would not necessarily

³¹ 10X responds persuasively to each of the many circumstances alleged by Bio-Rad concerning the work done by Drs. Hindson and Saxonov during their period of employment, maintaining that their work was conducted in a variety of technological contexts distinct from the particular GEM architecture described in the asserted patents. See CIB at 139-151. It is not necessary or useful to try to resolve every one of the parties’ disputes. These disputes are largely beside the point because, as discussed above, they are not probative on the issue of when the particular arrangement that constitutes the inventive concept of the asserted patents actually was conceived by Drs. Hindson and Saxonov.

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lead to the conclusion that the claimed inventions were conceived at QuantaLife or Bio-Rad.

Several months elapsed between the time Drs. Hindson and Saxonov left Bio-Rad and the founding of 10X. The actual idea could have been conceived at any time after Dr. Hindson and Saxonov left Bio-Rad's employ; the record does not indicate more likely than not that conception of the inventive idea in the asserted patents occurred before their departure.³²

In sum, the evidence before me is insufficient to permit the conclusion that, more likely than not, the work Drs. Hindson and Saxonov did at QuantaLife and Bio-Rad led them to conceive the idea described in the 10X patents while they were still under contract. *Compare Agilent Techs., Inc. v. Kirkland*, C.A. No. 3512-VCS, 2010 WL 610725 at *15 (Del. Ch. Ct. Feb. 18, 2010) (finding employees conceived of technology at issue "based upon insights they formed and recorded at Agilent from observing the empirical results of experiments they conducted at Agilent"). Bio-Rad presents no pertinent records showing insights or experiments that support the argument that the inventive idea in the asserted patents was conceived before these employees left Bio-Rad. Given that Bio-Rad bears the burden of proof on this issue, Bio-Rad has failed to establish ownership of the asserted patents. See CX-1827C (Dear RWS) at Q/A 1129 ("Nothing [Dr. Metzker] cites shows whether there was a partial experiment involving some but not all of these elements. Nothing shows how the experiments would work. Nothing he cites shows any experimental observation. Dr. Metzker does not rely upon anything in his

³² 10X's interrogatory responses detail with some specificity the timeline regarding development of the patented technology. See RX-0643C. In these responses, 10X seeks to show that the claims of the patents were conceived in [REDACTED]. *Id.* at 63-65. See also CX-1827C (Dear RWS) at Q/A 1269-1279. Dr. Metzker, Bio-Rad's witness, reviewed 10X's timeline regarding conception and declined to offer an opinion disagreeing with 10X's alleged [REDACTED] conception dates. Tr. (Metzker) at 704:7-705:22.

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testimony offering a reasonable basis to conclude that any such experiments occurred nor, importantly, what happened in them.”).

C. Other Affirmative Defenses

Bio-Rad raises several additional affirmative defenses. None has any merit.

Bio-Rad’s equitable estoppel defense has two prongs. Bio-Rad contends that the employment agreements signed by Drs. Hindson and Saxonov [REDACTED]

[REDACTED]

RIB at 132.

First, the agreements cited by Bio-Rad give no such “explicit contractual assurances.” Second, the evidence does not show that the inventions in the asserted 10X patents were made at QuantaLife and/or Bio-Rad.

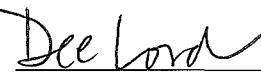
Bio-Rad also contends that 10X is equitably estopped from bringing this action because Bio-Rad had no notice of infringement until this litigation was instituted, and Bio-Rad allegedly relied on 10X’s “silence and inaction” in developing its product line “with the reasonable belief that it would not be subject to an infringement action.” *Id.* at 133. Bio-Rad points to no evidence to support the contention that it relied on any lack of notice of infringement from 10X. *See id.* Bio-Rad’s equitable estoppel defense fails for lack of proof.

Bio-Rad also claims to have an express license to practice each of the asserted patents, based on Drs. Hindson and Saxonov’s [REDACTED]
[REDACTED] *Id.* at 133. Since Bio-Rad has not shown that the invention embodied in the 10X patents was made during the course of the employment agreement, this defense also fails.

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information.³⁴ The parties' submissions under this subsection shall not be filed with the Commission Secretary but shall be submitted by paper copy to the Administrative Law Judge and by e-mail to the Administrative Law Judge's attorney advisor.

SO ORDERED.



Dee Lord
Administrative Law Judge

³⁴ To avoid depriving the public of the basis for understanding the result and reasoning underlying the decision, redactions should be limited. Parties who submit excessive redactions may be required to provide an additional written statement, supported by declarations from individuals with personal knowledge, justifying each proposed redaction and specifically explaining why the information sought to be redacted meets the definition for confidential business information set forth in Commission Rule 201.6(a). 19 C.F.R. § 201.6(a).

**CERTAIN MICROFLUIDIC SYSTEMS AND
COMPONENTS THEREOF AND PRODUCTS
CONTAINING SAME**

Inv. No. 337-TA-1100

PUBLIC CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the attached **INITIAL DETERMINATION** has been served by hand upon the Commission Investigative Attorney, **Monica Bhattacharyya, Esq.**, and the following parties as indicated, on **August 12, 2019**.



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